June 29, 2005

Paul Dabbs
Statewide Planning Branch
Department of Water Resources
P.O. Box 942836
Sacramento, CA 94236-0001

Sent via e-mail to: pdabbs@water.ca.gov

RE: California Water Plan Update 2005, Public Review Draft, April 2005

Dear Paul:

Below you will find the Nature Conservancy's comments on the public review draft of the California Water Plan Update 2005. We offer our compliments to the Department for producing this monumental Plan, and for effectively engaging the public throughout the process.

The Nature Conservancy is committed to preserving the plants, animals and natural communities that represent our planet's biodiversity by protecting the lands and waters they need to survive. Our research has shown that one of the leading causes of freshwater ecosystem degradation is the alteration of river flows. The Conservancy is working to protect and restore the natural flow of rivers at more than 400 sites across the U.S, Latin America, and the Caribbean, with the help of a wide range of organizations, governments, and communities.

The primary causes of river flow alteration are dams and diversions. Thus, the health of many of California's river ecosystems is inextricably tied to our water management systems. The Water Plan Update 2005 (Plan or Update) recognizes this fact. The Plan acknowledges that our actions to regulate and manage flows often have impacts on the environment, and that we must do all we can to reduce those impacts and protect our natural resources for the benefit future generations.

The Plan is a tremendous planning tool. The content is sure to prove useful to water managers; and the format, style, and internet database make it easy to use and understand. We provide the following comments on the Plan to bolster its potential for improving California's freshwater resources. The majority of our comments are about Volume 1, the Strategic Plan.

If you have any questions, please contact myself or Jennifer Martin at (415) 281-0469.

Sincerely,

Steve Johnson
Director of External Affairs

Volume 1: Strategic Plan

- Volume 1 provides an excellent summary of current conditions and challenges. Although we would have preferred that the Strategic Plan articulate clear and specific actions that the state will take to ensure our water resources are used as efficiently as practicable, we find that the Foundational Actions are well integrated and presented. It is essential that the Foundational Actions be of primary importance in all of our water management activities if we are to ensure sustainable use and maintain a healthy environment.

- Given the hydrologic connection between surface water and groundwater, overdraft and water quality degradation in many of the State's most productive groundwater basins is a major concern, and we appreciate the attention given to groundwater in the Plan. We find that the Plan would benefit from more data and a more thorough explanation of groundwater overdraft in Volume 1, and suggest that future Updates expand the discussion. Also, it should be made clearer in the Introduction, perhaps in Water Portfolios (page 1-3), that water balances do not include groundwater overdraft.

- The use of multiple scenarios for planning future demands and responses is one of the many significant achievements of this Update. It is clear, even from the preliminary data, that Californians have choices we can make now regarding land and water use that can directly impact the quality and availability of our natural resources in the future.

- The descriptions of the Less Resource Intensive scenario in Volume 1 and the Highlights Document are confusing. The summary in the Highlights Document is counter-intuitive in that agricultural and industrial production is simply "higher" than current trends. More detail here may help. Below are other points which may warrant more clarification in the Plan. It may be that this scenario in particular will need revision in the next phase of the Update.
    - On page 4-11, it is not clear why there is a high degree of commercial and industrial productivity for this scenario. Also, why use a year 2000 level of irrigated crop area, which is higher than Current Trends?
    - On page 4-13, Table 4-2, the Current Trends and Less Resource Intensive scenarios have the same population; why is the level of employees different?
    - On page 4-14, Table 4-3, why would there be more multicropping in the Less Resource Intensive scenario than in Current Trends?

- The Plan would benefit from being less focused on those activities that will be undertaken by the Department. This is the State's Water Plan, and the roles and responsibilities of other relevant state agencies should be described in the Framework for Action and the Implementation Plan.

- The description of Initiative 2 lacks depth in non-structural actions (i.e. those related to the management systems that are not infrastructure) (page 2-11). This deficiency becomes more apparent in the Highlights Document. We would like to see more detail about the last two bullets in Near-term Actions (page 2-12) in the Plan and the Highlights Document.

- Initiative 2, Improve Flood Management (page 2-10), does not describe the entire range of issues germane to flood management, and focuses too narrowly on the state's maintenance and liability issues. We suggest that the text be revised to expand the presentation of challenges and possible solutions. Additionally this section would be improved by removing the sentence, "Legislative and constitutional actions may include…" as the examples cited are not entirely representative and there is significant disagreement amongst the stakeholder community about those that are listed.

- The actions listed in Invest in New Water Technology (page 2-14) include one on investing in a broad and diverse scientific agenda to fill data gaps. It has become clear through the Water Plan process that there are huge data gaps is what is required to assess ecosystem flow needs. We request a separate bulleted item committing the state to focus resources on the collection of data and analysis of environmental flows.

- The Chapter 3 Regional/Local Challenges would be improved with a greater discussion of tribal interests, particularly in the North Coast region (page 3-12) regarding the Trinity River.

- In the San Joaquin regional description (page 3-15), the Environmental Water Supply paragraph states, "This litigation continues, and the resolution will be challenging because of the potential to impact water supplies for the Friant Water Users Authority." This statement could be construed as prejudicial and should be removed or revised to include potential damages to all parties.

- In Chapter 3, Understanding How Water is Allocated, Used and Regulated, the section on Water for Environmental Uses (page 3-34) lacks any description. We suggest there be at least a short discussion on what these laws do and how they might apply. Additionally, we suggest that the following laws, policies and regulations be addressed in this section: legally dedicated instream flows, wild and scenic river designation, delta outflow mandates, and CVPIA refuge water requirements. This list is identical to Box 3-11, and this section should offer readers more information.

- At the first appearance of the statistic on the amount of groundwater overdraft (and on page 4-14 if that's not the first), we suggest the text direct the reader to the data that support this figure.

- The description of Environmental Use in Chapter 4 (page 4-21) is good. We suggest adding a paragraph on problems associated with physical alterations similar to those on water quality and invasive species. We would be happy to provide sample text.

- Chapter 5, Table 5-2, (page 5-3), we suggest that you change "Evaluation Criteria" to "Evaluation Category" as these are not really criteria. They lack values such as higher or lower (e.g. fewer listed species under environmental benefits).

- Comments on the Recommendations in Chapter 5 are as follows:
    - Rec. 1: DWR is not the only state agency implementing the CALFED Program. The last bullet in the Action Plan should refer to all implementing agencies.

- Rec. 2: We think the groundwater outcomes are good, but it is not clear how the Action Plan will result in guidelines for reduction of groundwater overdraft.
- Rec. 3: The Water Quality action plan needs more detail, such as the actual process and schedule DWR will utilize to evaluate and deal with the effects of contaminants.
- Rec. 4: Improvements made to infrastructure should consider and implement measures that reduce impacts to the environment. Many substantial improvements or repairs will offer an opportunity to lessen environmental impacts and this should be explicit in the Action Plan.
- Rec. 5: It is not clear why the Action Plan highlights some CALFED programs and not others. The first 3 bullets should be removed since their sole existence implies exclusion of other CALFED programs such as the Ecosystem Restoration Program (ERP). The last 3 bullets are adequate and more inclusive. At a minimum, if certain programs are called out, Water Use Efficiency and the ERPshould be included.
- Rec. 6: We would like to see a specific outcome for an environmental flow assessment. An assessment should be done for all of California's major rivers, but priority could go towards SWP and CVP rivers. (see Recommendations for Ecosystem Restoration, Vol. 2, page 9-5)
- Rec. 12: The third bullet in the Action Plan should say that the state will assist all dam operators in meeting Fish and Game Code 5937. Also, all agencies responsible for protecting the public trust should implement the Action Plan.

- Peter Yolles's name is misspelled on page ix.

Volume 2: Resource Management Strategies

We make the following suggested changes to the text in Chapters 9 and 17:

Chapter 9. Ecosystem Restoration

Ecosystem restoration can include changing the flows in streams and rivers, restoring fish and wildlife habitat, controlling waste discharge into streams, rivers, lakes or reservoirs, or removing barriers in streams and rivers so salmon and steelhead can spawn. Ecosystem restoration improves the condition of our modified natural landscapes and biotic communities to provide for the sustainability and for the use and enjoyment of those ecosystems by current and future generations. Healthy aquatic and wetland ecosystems benefit California's native plants and wildlife and its society and economy.

Many of California's ecosystems cannot be restored to their former state, and that degree of restoration is not always desirable. Instead, ecosystem restoration focuses on rehabilitating ecosystems so that they supply important elements of their original structure and function in a sustainable manner. Ecosystem restoration and protection can be viewed as the proper maintenance of California's natural infrastructure.

Over the past couple of decades, the public has recognized the need to restore California's ecosystems. The desire to improve the conditions of those ecosystems was supported by the

passage of bond issues, such as Propositions 204, 13 and 50. Local and regional restoration projects have multiplied. There are watershed alliances and regional ecosystem projects throughout the state, including the Los Angeles, San Joaquin, Truckee, Carmel, Sacramento, and Trinity rivers. Some of these projects are described in the regional reports of Volume 3. Much of California's rural private lands provide significant wildlife habitat. See the agricultural land stewardship strategy for information of agricultural practices that preserve and enhance habitat conditions.

The decade prior to publication of this update saw a remarkable transformation in water management in California. In 1993, water management was characterized by lawsuits, policy gridlock, and conflicts between those who sought to improve water supply reliability and those who sought to protect threatened and endangered species. Since 1995, the CALFED Bay-Delta Program has been working towards improving water supply reliability while restoring ecosystems. (*CALFED* Bay-Delta Program should replace *California* Bay-Delta Program throughout the narrative, as in other strategies)

Land development projects and water development projects have often had significant, if unanticipated, environmental impacts. Today, planning must include investment to prevent ecosystem damage and long term maintenance costs. Future water projects could face conflict and opposition if they do not protect and restore the ecosystem. And water projects can help restore ecosystems because they can help ensure flows in streams and rivers at flow rates and patterns to facilitate restoration actions.

This strategy focuses on restoration of aquatic ecosystems because these are the ecosystems most directly affected by water management.

Major Issues Facing Implementation of Ecosystem Restoration

The major threats to aquatic and riparian habitat and freshwater biodiversity in California stem from physical changes associated with dams, diversions, bank erosion protection, and levees; poor water quality, including temperature, dissolved oxygen levels and pollutants; and non-native invasive species. These issues are outlined further in the strategies for floodplain management, pollution prevention and watershed management in this volume. Beyond those direct physical changes, this section describes other issues and challenges facing restoration efforts.

Effectiveness and Efficiency of Restoration Actions

The effectiveness and efficiency of actions taken to restore and protect aquatic ecosystems is often complex and difficult to measure. Effectiveness is the amount of benefit gained such as an increase in abundance of a species. Efficiency can be thought of as the effectiveness per unit of expenditure (e.g., money or water). Effectiveness and expenditure may not correspond one-to-one, often because factors other than the amount of funding or amount of water influence the degree of restoration achieved. The perception of wide variations in efficiency motivates a search for the more efficient alternatives. Without agreement on which alternatives those might be, opposition to further commitments, especially of water, will continue.

Chapter 17. Surface Storage – CALFED

The CALFED Record of Decision (2000) identified five potential surface storage reservoirs that are being investigated by the California Department of Water Resources, U.S. Bureau of Reclamation, and local water interests. Building one or more of the reservoirs would be part of CALFED's long-term comprehensive plan to restore ecological health and improve water management of the Bay-Delta. The five surface storage investigations are:

- Shasta Lake Water Resources Investigation
- North-of-the-Delta Offstream Storage
- In-Delta Storage Project
- Los Vaqueros Reservoir Expansion
- Upper San Joaquin River Basin Storage Investigation

In one of the most ambitious integrated water management plans in the nation, the CALFED Bay-Delta Program set forth objectives and actions to protect water quality and at-risk species, restore habitat in the San Francisco Bay-Sacramento-San Joaquin River Delta and continue to meet the water needs of farms and cities. The Program recognized early on that its plan must include the means for more fully integrating California's water supply system to provide more reliable water supplies and to meet competing needs. More storage may be necessary for successfully meeting those needs.

The five investigations are being completed under the direction provided by the CALFED ROD and the California Bay-Delta Authority. The ROD includes a number of implementation commitments and solution principles to guide potential project implementation. For example, a fundamental philosophy of the CALFED Program is that costs should be paid by the beneficiaries of the program actions. The CALFED Program has also provided a forum for independent scientific review of important project-related issues through development of a Science Program with expert panels. In addition, the CBD agencies have committed to science-based adaptive management that would allow their facilities operations to be modified as understanding of issues improve or new issues are identified.

Potential Benefits from CALFED Surface Storage

CALFED noted that perhaps the greatest benefit of new surface storage would be the operational flexibility that storage adds to today's constrained system. The Bay-Delta ecosystem provides water for a wide range of needs, including in-stream flows for aquatic species, riparian habitat, wetlands, as well as benefits to municipal, industrial, and agricultural users. These often competing demands have restricted the operational flexibility of the SWP and CVP water management systems and consequently negatively impacted the quantity, quality, and timing of deliveries. The inflexibility and resulting consequences are then passed along to water users that are partially or wholly dependent on the operations or deliveries of the CVP and SWP systems. By storing additional water, new surface storage can contribute to improved operational flexibility in the SWP and CVP systems and associated users for the enhanced statewide water resources benefits described below. Off-stream surface storage may provide enhanced operational flexibility that could benefit in-stream flows, however it always must be weighed against the negative impacts that storage has on other portions of the hydrograph.